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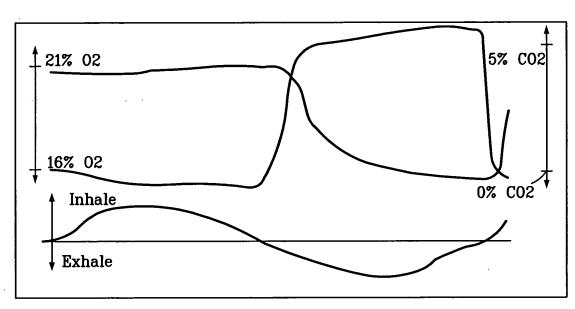
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Docket No.: BRAG-0002 Confirmation No.: 8654
App No.: 10/718,075. Filed: November 20, 2003
Title: Method and Apparatus for Estimation of Resting Respiratory Quotient
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Attorney: Michael P. Dunnam
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FIG. 1



Time

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FIG. 2

	1				Τ	T		,	П	-
	Athletic V	/olunteer			L				Ц	
	Resting Condition								Ш	
		Clinical	Measurement			Com	puted Usin	g Inve	n	ion
			Water			Dry			П	
			Saturated	R		Equivalent	Difference	RET		RET-R
		Inspired	End Tidal			End Tidal				error
Run 1	Oxygen	159.6	103	0.67		109.79	49.81	0.71		0.04
	CO2	0	33			35.18	35.18			
Run 2	Oxygen	159.6	94	0.67		100.20	59.40	0.65		-0.02
	CO2	0	36			38.37	38.37			
Run 3	Oxygen	159.6	101	0.71		107.66	51.94	0.70		-0.01
	CO2	0	34			36.24	36.24			
Run 4	Oxygen	159.6	112	0.80		119.38	40.22	0.80		-0.00
	CO2	0	30			31.98	31.98			
				=				=		=
			Average	0.71			Average	0.71		-0.00

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FIG. 3

	Normal Man								
	Resting Condition								
					Г				
		ment		Com	puted Using Invention				
			Water Saturated	R		Dry Equivalent	Difference	RET	RET-R
		Inspired	End Tidal			End Tidal			error
Run 1	Oxygen	159.6	112	0.94		119.38	40.22	0.93	-0.01
	CO2	0	35			37.31	37.31		
Run 2	Oxygen	159.6	105	0.81		111.92	47.68	0.85	0.04
	CO2	0	38			40.50	40.50		
Run 3	Oxygen	159.6	105	0.81		111.92	47.68	0.83	0.02
	CO2	0	37			39.44	39.44		
					L				
Run 4	Oxygen	159.6	103	0.76	L	109.79	49.81	0.81	0.05
	CO2	0	38			40.50	40.50		
Run 5	0	159.6	102	0.76		108.72	50.88	0.80	0.04
Kun 3	Oxygen			0.76	L		<u></u>	0.80	0.04
	CO2	0	38		L	40.50	40.50		
Run 6	Oxygen	159.6	106	0.88		112.99	46.61	0.85	-0.03
	CO2	0	37		Γ	39.44	39.44		
				=	Γ			=	=
			Average	0.83	Γ		Average	0.84	0.01

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	Normal N		П						
	2 Min aft	er startin	g Exercise						
	Heart Ra								
	Work out								
	Clinical Measurem			nent		Com	puted Using	g Invent	ion
			Water Saturated	R		Dry Equivalent	Difference	RET	RET-R
		Inspired	End Tidal		П	End Tidal			error
Run 1	Oxygen	159.6	101	0.84		107.66	51.94	0.86	0.02
	CO2	0	42			44.77	44.77		
Run 2	Oxygen	159.6	101	0.87		107.66	51.94	0.84	-0.03
	CO2	0	41			43.70	43.70		
Run 3	Oxygen	159.6	102	0.88		108.72	50.88	0.88	-0.00
	CO2	0	42			44.77	44.77		
Run 4	Oxygen	159.6	100	0.90		106.59	53.01	0.88	-0.02
	CO2	0	44			46.90	46.90		
Run 5	Oxygen	159.6	103	0.92		109.79	49.81	0.92	0.00
	CO2	0	43			45.83	45.83		
				=					
			Average	0.88			Average	0.88	-0.00

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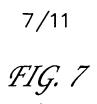
	Normal N	/I an			П				Т					
	 		g Exercise		Н				╬					
	Heart Ra		H				╁							
	<u> </u>		H				╬							
	Work output 100 - 140 Watts				Н				╁					
	Clinical Measuren				H	Com	Computed Using Invention							
			Water		П	Dry			\Box					
			Saturated	R		Equivalent	Difference	RET		RET-R				
		Inspired	End Tidal		П	End Tidal				error				
Run 1	Oxygen	159.6	107	1.02		114.05	45.55	1.01		-0.01				
	CO2	0	43			45.83	45.83							
Run 2	Oxygen	159.6	106	1.06		112.99	46.61	0.98		-0.08				
	CO2	0	43			45.83	45.83							
Run 3	Oxygen	159.6	107	1.03		114.05	45.55	1.01		-0.02				
	CO2	0	43			45.83	45.83							
Run 4	Oxygen	159.6	108	1.10		115.12	44.48	1.03		-0.07				
	CO2	0	43			45.83	45.83							
Run 5	Oxygen	159.6	109	1.07		116.19	43.41	1.03		-0.04				
	CO2	0	42			44.77	44.77							
				=				=		=				
			Average	1.06			Average	1.01		-0.04				

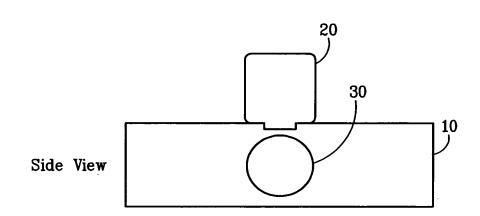
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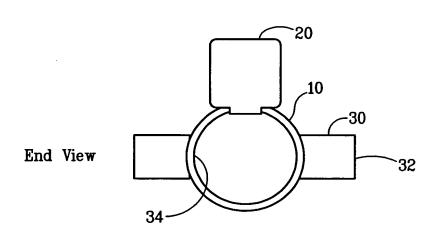
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	Normal M an				Γ				Г	
ļ	9 Min after starting Exercise				┢				F	
	Heart Ra		┢				F			
<u> </u>	Work output 180 - 200 Watts				┢				F	
					F				F	
	Clinical Measuren				F	Com	puted Using	Inven	ti	on
			Water Saturated	R		Dry Equivalent	Difference			RET-R
		Inspired	End Tidal			End Tidal			Γ	error
Run 1	Oxygen	159.6	112	1.18		119.38	40.22	1.11	Ī	-0.07
	CO2	0	42		Γ	44.77	44.77		Ī	
			· · · · · · · · · · · · · · · · · · ·						Г	
Run 2	Oxygen	159.6	112	1.21		119.38	40.22	1.11	Γ	-0.10
	CO2	0	42			44.77	44.77		Π	
									П	
Run 3	Oxygen	159.6	115	1.28		122.58	37.02	1.15		-0.13
	CO2	0	40			42.64	42.64			
			77							
Run 4	Oxygen	159.6	119	1.34		126.84	32.76	1.20		-0.14
	CO2	0	37			39.44	39.44			
Run 5	Oxygen	159.6	118	1.36		125.78	33.82	1.17		-0.19
	CO2	0	37			39.44	39.44			
				=				=		=
			Average	1.27			Average	1.15		-0.12

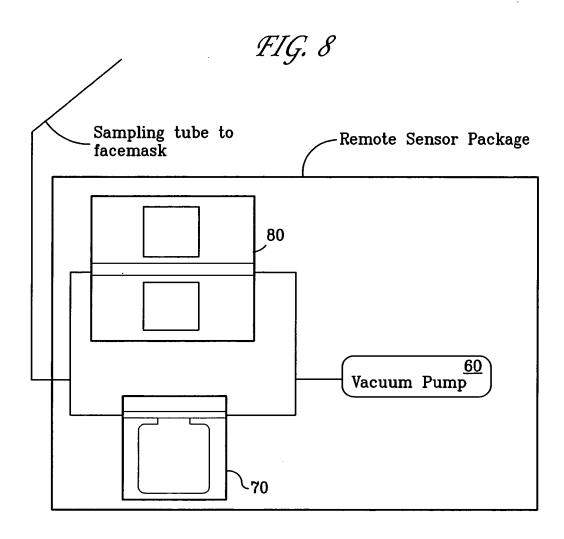
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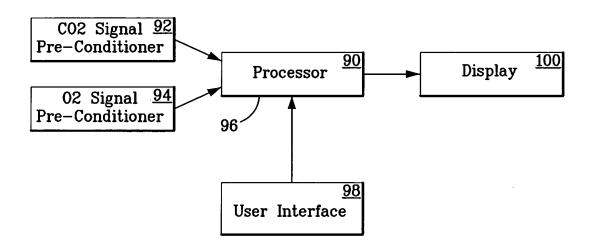


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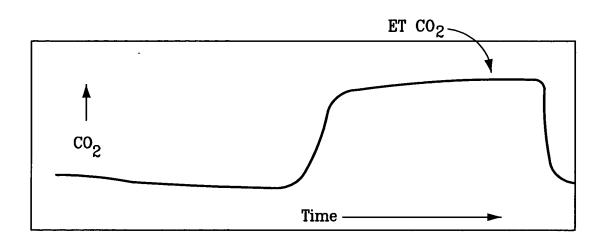
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FIG. 9



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FIG. 10



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FIG. 11

